

Claims

1. A method for the production of raw materials for candle production and for heat storage material, such as waxes, in which from a starting material containing lipids the lipids are extracted and/or refined and/or hydrogenated, characterized in that as the starting material, a mixture of organic materials containing lipids, in particular mixtures of food residues, old cooking fats and/or recycled food materials from the food industry, and/or animal fats

a) in a first method step are washed and comminuted;

b) in a second method step, the lipids are isolated;
and

c) next, the lipids are selectively esterified and/or refined and/or hydrogenated into the raw material for the candle production or for the heat storage material.

2. The method in accordance with claim 1, characterized in that before the second method step, the mixture is made into a slurry.

3. The method in accordance with claim 1 or 2, characterized in that between the first and second method steps, in a further method step the starting material is dehydrogenated and sterilized at an overpressure of 10^5 Pa to 5×10^5 Pa, preferably 3×10^5 Pa, and at a temperature of between 353 K and 453 K, preferably 403 K.

4. The method in accordance with claims 1 through 3, characterized in that the raw material for the candle production or the heat storage material is obtained by one of the following method steps:

- a) centrifuging;
- b) filtration;
- c) fragmentation;
- d) solvent elution.

5. The method in accordance with one of the foregoing claims, characterized in that the lipids are delivered to the refinement and/or hydrogenation in liquid form, preferably at a temperature of from 333 K to 353 K, in particular 343 K.

6. The method in accordance with one of the foregoing claims, characterized in that the lipids are esterified and/or re-esterified in a circulatory process, optionally multiple times.

7. The method in accordance with one of the foregoing claims, characterized in that the refinement includes at least one of the following method steps:

- a) desliming (soap decomposition)
- b) neutralization (deacidification and desalting)
- c) washing

- d) drying
- e) bleaching and optionally rebleaching
- f) filtration
- g) deodorizing.

8. The method in accordance with one of the foregoing claims, characterized in that the lipids are hydrogenated, in particular pressure-hydrogenated.

9. The method in accordance with claim 7, characterized in that the lipids are hydrogenated using a catalyst.

10. The method in accordance with claim 9, characterized in that as the catalyst, nickel or a noble metal, such as platinum, is used.

11. The method in accordance with claims 8 through 10, characterized in that the lipids are hydrogenated up to an iodine number ≤ 80 .

12. The method in accordance with claims 8 through 10, characterized in that the lipids are hydrogenated up to an iodine number ≤ 20 .

13. The method in accordance with one of the foregoing claims, characterized in that as the starting material, a mixture of organic materials containing lipids of vegetable and animal origin is used.

14. The method in accordance with one of the foregoing claims, characterized in that mineral oils and fats are added to the mixture of organic materials containing lipids.

15. The method in accordance with one of the foregoing claims, characterized in that hydrocarbons are added to the mixture of organic materials containing lipids.

16. The method in accordance with one of the foregoing claims, characterized in that the various lipids within the mixture of the starting material are processed into triglycerides.

17. The method in accordance with one of the foregoing claims, characterized in that the lipids within the mixture of the starting material are processed into a uniform triglyceride.

18. The method in accordance with one of the foregoing claims, characterized in that before the lipids are isolated, free fatty acids are extracted from the mixture.

19. The method in accordance with one of the foregoing claims, characterized in that dyes and/or fragrances are added to the raw materials obtained.

20. The method in accordance with one of the foregoing claims, characterized in that from the raw materials obtained, candles are produced by casting, compacting or drawing, or by paste filling methods or foaming methods.

21. A raw material for candle production and heat storage material, produced by a method in accordance with claims 1 through 20.

22. A candle, made from a raw material which is produced by a method in accordance with claims 1 through 20.